

start control processing relating to embodiment 5 of the present invention. This embodiment 5 is for explaining the embodiment 4 in more detail.

The control portion 12 first acquires a presently used code number  $m$  in response to a start timing of a held wireless frame (step T1). Next, the control portion 12 judges whether or not this acquired presently used code number  $m$  is smaller than a previously set multicode number  $Ccode$  (step T2). If the presently used code number  $m$  is larger than the multicode number  $Ccode$  (NO at step T2), since all data channels DCH assigned to one call are already used, the control portion 12 ends the transmission start control processing.

On the other hand, if the presently used code number  $m$  is not larger than the multicode number  $Ccode$  (YES at step T2), the control portion 12 judges whether or not the in-buffer data amount  $Dbuf$  is not smaller than the code  $m$  transmission start threshold value  $Tth-(m+1)$  (step T3). If the in-buffer data amount  $Dbuf$  is smaller than the code  $m$  transmission start threshold value  $Tth-(m+1)$  (NO at step T3), since the packet data is not stored in the transmission buffer 11a to such a degree that another data channel DCH must be used, after executing a stop processing (step T4) of a code  $m$  transmission start judgment timer  $Tstr-(m+1)$ , the control portion 12 ends the transmission start control processing.

On the other hand, if the in-buffer data amount  $Dbuf$  is

not smaller than the code  $m$  transmission start threshold value  $T_{th}-(m+1)$  (YES at step T3), the control portion 12 judges whether or not the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  is already activated (step T5). If the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  is not activated (NO at step T5), the control portion 12 activates the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  (step T6), and then, the control portion ends the transmission start control processing. On the other hand, if the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  is activated (YES at step T5), the control portion 12 judges whether or not the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  times out (step T7).

If the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  does not time out (NO at step T7), since the in-buffer data amount  $Dbuf$  might have merely temporarily exceeded the code  $m$  transmission start threshold value  $T_{th}-(m+1)$ , the control portion 12 ends this transmission start control processing. Thereafter, after the start timing of a next wireless frame have passed, if the in-buffer data amount  $Dbuf$  is not smaller than the code  $m$  transmission start threshold value  $T_{th}-(m+1)$  and the code  $m$  transmission start judgment timer  $T_{str}-(m+1)$  times out (YES at step T7), after incrementing the presently used code number  $m$  by one (step T8), the control portion 12 starts communication through the  $m$ -th data channel DCH. Thereafter, the control portion 12 returns to step T2 and

judges whether or not all data channels DCH are used, and in the case where all are not used, the processing from the step T3 is repeated and executed.

#### Embodiment 6

Fig. 12 is a view for explaining multicode transmission of down packet data according to embodiment 6 of the present invention.

In the embodiments 1 to 5, the transmission start control of packet data has been described. On the other hand, in this embodiment 6, transmission stop control of packet data is exemplified.

In the state where down packet data to be transmitted exists and the down packet data is transmitted, the base station 2 monitors whether or not the down packet data disappears from the transmission buffer 11a. In the case where the down packet data disappears, the base station 2 starts to stop the transmission through the data channel IDCH in response to this timing.

Specifically, in the case where the control portion 12 detects that the down packet data disappears from the transmission buffer 11a, the control portion stops the transmission through the down fourth data channel IDCH4 in response to this detection. Thereafter, after a delay of predetermined frames, the control portion 12 stops the